EXPANDING BROADBAND ACCESS AND ADOPTION IN RURAL AND UNSERVED COMMUNITIES

by
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ABSTRACT

Access to high-speed broadband is a necessity, with research showing that a lack of access can negatively impact economic, educational, and health outcomes for the unserved. While federal subsidies for broadband infrastructure expansion and adoption have increased significantly since 2016, the broadband adoption rate remains at 70% with approximately 42 million Americans lacking access to affordable high-speed broadband. This memo proposes a two-part policy to establish a permanent Broadband Affordability Benefit (BAB) at the Federal Communications Commission (FCC) for low-income subscribers and instruct the FCC to conduct a one-time, large-sum capital auction to expand broadband infrastructure to unserved areas. While the BAB would boost broadband adoption and enjoys broad political support, the politics and technical challenges of FCC auctions would make passage difficult.

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MEMORANDUM

TO: Nancy Pelosi, Speaker of the House (D-CA)

FROM: Ethan Gallagher

DATE: October 30, 2021

SUBJECT: Addressing the Digital Divide

ACTION FORCING EVENT

The Senate passed the Infrastructure Investment and Jobs Act, which includes $65 billion in new spending to expand universal broadband access and affordability. The additional funding supplements $10 billion for broadband connectivity in the Consolidated Appropriation Act of 2021 and the American Rescue Plan Act.[1]

STATEMENT OF THE PROBLEM

According to the 2020 Broadband Deployment report conducted by the Federal Communications Commission (FCC), approximately 18.3 million Americans lack access to high-speed broadband infrastructure.[2] However, pro-broadband thinktanks have concluded upwards of 42 million Americans lack access to affordable high-speed broadband, which is defined as a minimum of 25 megabits per second (Mbps) download speed and 3 Mbps upload speed.[3] Before the onset of the coronavirus pandemic, significant attention and government resources were dedicated to bridging the digital divide in rural

[1] Infrastructure Investment and Jobs Act of 2021. H.R. 3684, 117th Congress. (2021). https://www.congress.gov/117/bills/hr3684/BILLS-117hr3684pcs.pdf

[2] "2020 Broadband Deployment Report", Federal Communications Commission, 2020. https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2020-broadband-deployment-report

[3] Busby, J., Tanberk, J and Cooper, T. "Broadband Now: Availability Report for all 50 States." August 29, 2021. https://broadbandnow.com/research/fcc-broadband-overreporting-by-state

and remote areas where internet service providers (ISPs) did not see broadband expansion as cost-effective. As work, school, and receiving healthcare shifted predominately online, however, the racial and socioeconomic implications of underserved urban areas compounded the problem further. A solution is needed to expand physical fiber infrastructure in areas where it is not available and address issues of equity and affordability where it is available.

Access to high-speed broadband is essential for communities to thrive in the digital age. Educational facilities, health care delivery networks, and businesses rely on broadband access to transfer information quickly and operate efficiently. In rural areas, broadband access is critical to the evolving technologies in the agriculture and energy sectors, which are essential to the national economy.[4] Census Bureau data highlights that 19% of rural households lack broadband access, however, this percentage is likely much larger, as this data deems an entire census block "served" if only one or two households self-report having a broadband connection.[5]

The digital divide impacts health and life outcomes, as broadband connectivity expands access to telehealth services, social networks, and online educational opportunities.[6] Approximately 50% of students in rural areas and 58 % of all U.S. students use the internet at home daily.[7] However, a Pew Research Center study conducted in 2018 revealed 35% of students shared completing their homework on a cell phone, 17% were

[4] Agriculture and Rural Prosperity Task Force Report, January 8, 2018, www.usda.gov/ruralprosperity

[5] 2013-2017 American Community Survey. December 6, 2018. https://www.census.gov/newsroom/press-releases/2018/2013-2017-acs-5year.html

[6] Crandall, R., W. Lehr, and R. Litan. 2007. "The Effects of Broadband Deployment on Output and Employment: A Cross-sectional Analysis of U.S. Data." Issues in Economic Policy. 6:1-34.

[7] Auxier, Brook. "As schools close due to the coronavirus, some U.S. students face a digital 'homework gap." Pew Research Center. March 16, 2020. https://www.pewresearch.org/fact-tank/2020/03/16/as-schools-close-due-to-the-coronavirus-some-u-s-students-face-a-digital-homework-gap/

unable to complete their assignments, and 12% relied on public wifi for schoolwork.[8] When the COVID-19 pandemic forced schools to close, some students in rural areas reported completing their assignments in a McDonald's parking lot, while only 27% of rural school districts adapted to remote instruction due to widespread lack of broadband in their respective communities.[9]

In the healthcare sector, key aspects of delivery networks rely on internet access, such as electronic health records, provider communications, and telehealth visits. The digital divide exacerbates the negative public health impacts of provider shortages, hospital closures, and poor access to care in rural areas. In 2020, the American Public Health Association declared broadband internet access as a social determinant of health, citing the increased prevalence of chronic health issues such as heart disease, high blood pressure, and diabetes among those who forgo primary healthcare due to a lack of access to remote services under COVID-19.[10]

Major ISPs refuse to expand their broadband networks into rural areas with a low population density or challenging geographic terrain, as user fees and contracting charges do not generate a significant return on investment. While some customers can secure "last mile" service via satellite providers or telecommunications cooperatives, these options remain extremely expensive and inaccessible to low-income and tribal communities. In

[8] Anderson, Monica. "Nearly one-in-five teens can't always finish their homework because of the digital divide." Pew Research Center. October 26, 2018. https://www.pewresearch.org/fact-tank/2018/10/26/nearly-one-in-five-teens-cant-always-finish-their-homework-because-of-the-digital-divide/

[9] Harris, Bracey "Homework in a Mcdonald's parking lot: inside one mother's fight to help her kids get an education during the coronavirus." The Hechinger Report. June 27, 2020. https://hechingerreport.org/homework-in-a-mcdonalds-parking-lot-inside-one-mothers-fight-to-help-her-kids-get-an-education-during-coronavirus/

[10] Natalie C. Benda Ph.D., Tiffany C. Veinot Ph.D., MLS, Cynthia J. Sieck Ph.D., MPH, and Jessica S. Ancker Ph.D., MPH. "Broadband Internet Access is a Social Determinant of Health." AJPH. July 8, 2020. https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2020.305784?journalCode=ajph

urban areas with a saturated broadband market, subscription rates among low-income communities, particularly communities of color, remain extremely low due to cost. In 2020, 43% of adults with incomes below $30,000 a year reported not having broadband access, with approximately 15 million students unable to connect to online learning at home.[11] Access to high-speed broadband has become a necessity similar to other basic infrastructure as water and electricity, and addressing the digital divide requires considering availability and affordability concurrently.

In the wake of COVID-19, expanding broadband availability and affordability is essential to growing the economy and creating jobs. A recent study by Deloitte modeled the relationship between broadband availability, jobs, and GDP growth. According to the report, A 10-percentage-point increase in broadband access in 2014 would have resulted in more than 875,000 additional US jobs and $186 billion more economic output in 2019.[12] Narrowing the digital divide by addressing the issues of broadband availability, affordability, and equity is an additional benchmark necessary for the Administration to maintain its promise of building back better.

HISTORY

The digital divide was first highlighted as a major policy issue in the 1990s when American society began to digitize with the advent of the internet. At that time, cable companies began integrating cable broadband service to subscribers, while telephone

[11] Vogels, Emily. "Digital divide persists even as Americans with lower incomes make gains in tech adoption." The Pew Research Center. June 22, 2021. https://www.pewresearch.org/fact-tank/2021/06/22/digital-divide-persists-even-as-americans-with-lower-incomes-make-gains-in-tech-adoption/

[12] "Broadband for all: Charting a path to economic growth." Deloitte. April 2021. file:///C:/Users/996211/Downloads/us-charting-a-path-to-economic-growth.pdf

companies offered DSL service utilizing existing telephone lines. As a component of his New Markets Initiative, which aimed to fight economic inequality by incentivizing the private sector to invest in underserved communities, President Clinton commissioned a study at the National Telecommunications and Information Administration (NTIA) on telephone and internet use in schools, community facilities, and homes. "Falling Through the Net: A Survey of the 'Have Nots' in Rural and Urban America" found significant inequalities in broadband access along racial, economic, and geographic lines, with poor households in rural communities having the lowest rate of internet access.[13]

Congress first acknowledged and codified the digital divide via the Telecommunications Act of 1996, which directed the FCC to remove all barriers to broadband infrastructure investment and promote competition in the telecommunications market.[14] Section 706(a) of the bill established an annual reporting requirement of the FCC to evaluate the progress of broadband deployment in the United States, and these reports are most frequently utilized by the government to create, justify, and evaluate the effectiveness of existing broadband subsidy programs. While there has been a 47% increase in fixed broadband access nationwide and an 85% increase in broadband access in rural areas since 2017, the 2020 FCC Broadband Deployment report shows rural areas falling behind suburban and urban areas in terms of fixed broadband by 54%.[15] The rural broadband hap has narrowed significantly over the last decade, however, this improvement is largely due to the increased reliance on cellular broadband, as illustrated below.

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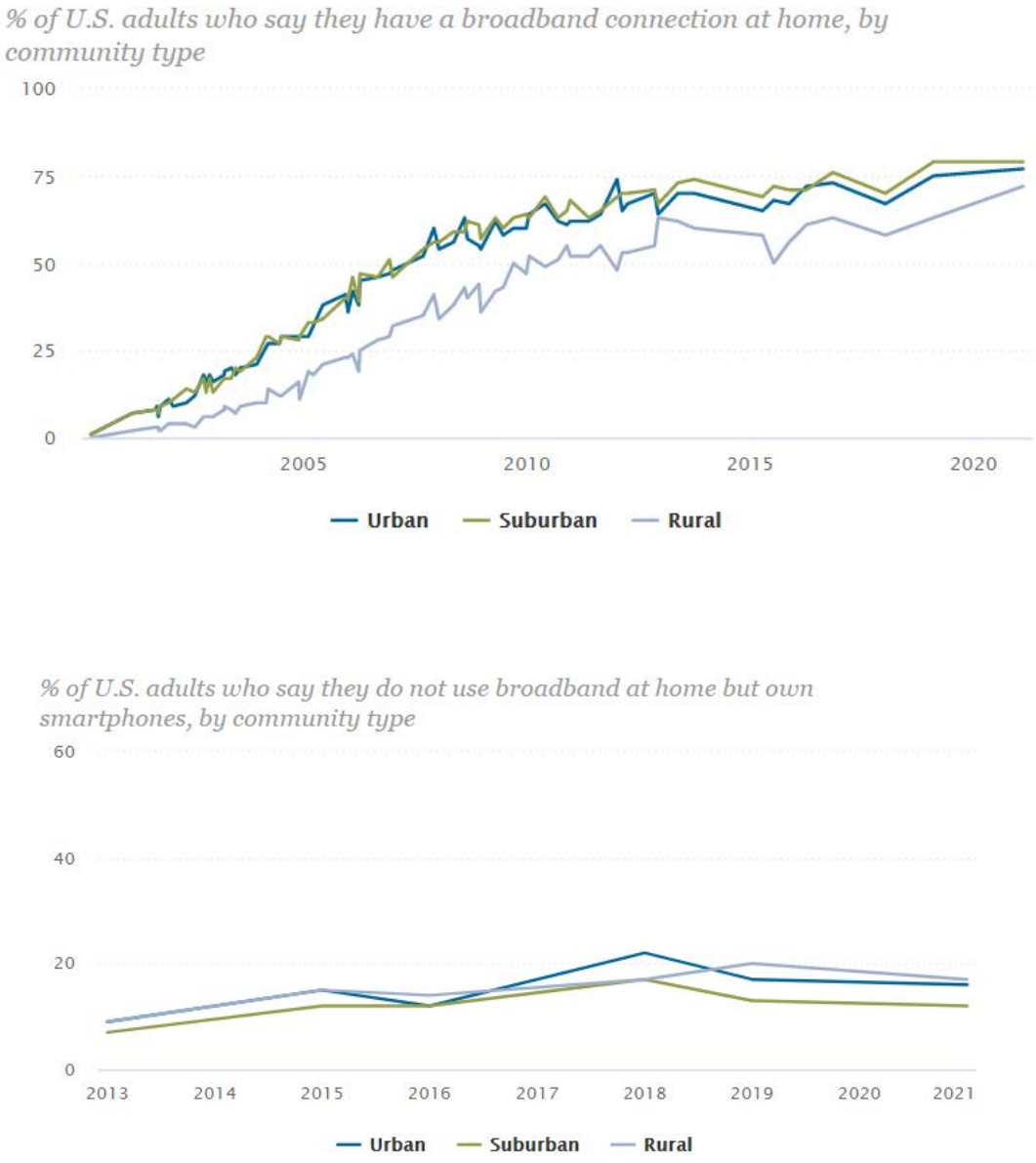
[13] "Falling Through the Net: A Survey of the 'Have Nots' in Rural and Urban America" NTIA, 1995. https://www.ntia.doc.gov/ntiahome/fallingthru.html

[14] Telecommunications Act of 1996. S.652, 104th Congress. (1996). https://transition.fcc.gov/Reports/tcom1996.pdf

[15] "New FCC Report Shows Digital Divide Continuing to Close." FCC. April 24, 2020. https://www.fcc.gov/document/new-fcc-report-shows-digital-divide-continuing-close-0

Figure 1: *Pew Research data highlighting 20% of rural respondents relying on smartphones for broadband access.*[16]



[16] "Internet/Broadband Fact Sheet." Pew Research Center. April 7, 2021. https://www.pewresearch.org/internet/fact-sheet/internet-broadband/?menuItem=c41259a2-d3a8-480d-9d1b-2fb16bcf0584

The federal government incentivizes broadband infrastructure deployment into rural and underserved areas primarily through subsidy programs at the NTIA, the FCC, and the Rural Utilities Service (RUS) at the Department of Agriculture. RUS and NTIA are funded through appropriations by Congress, while the FCC receives funding via Congress and the regulatory collection of user fees from telecommunications providers.[17] These subsidies come in the form of grants, loans, or loan-grant combinations to offset construction costs faced by providers seeking to expand broadband networks into sparsely populated or geographically challenging rural areas. Between 2009 and 2020, federal investments in rural broadband totaled upwards of $45.7 billion.[18]

The FCC houses the Universal Service Fund (USF), which was established to meet the universal service principles under the Telecommunications Act of 1996. USF funds are funded by fees collected from telecommunications providers that operate interstate service and are not subject to congressional appropriations. The Universal Service Administrative Company (USAC) administers USF funds independently and targets supply-side subsidies for rural broadband deployment through the Connect America Fund (CAF) and the Rural Digital Opportunity Fund (RDOF) under the High-Cost Program. The High-Cost Program supports broadband infrastructure deployment in rural and remote areas and subsidizes the ongoing operations of existing broadband networks in high-cost areas, totaling upwards of $7 billion annually.[19] The funding streams of the High-Cost Program constitute the largest source of federal funding for rural broadband purposes, with $14 billion provided between

[17] "The FCC: Current Structure and Role in the Changing Telecommunications Landscape." CRS. April 18, 2019. https://www.everycrsreport.com/reports/RL32589

[18] American Broadband Initiative Progress Report. June 2020. https://www.ntia.doc.gov/report/2020/ABI_Progress_Report

[19] "Connect America Fund: Phase II FAQs." FCC. December 30, 2019. https://www.fcc.gov/consumers/guides/connect-america-fund-phase-ii-faqs

FY 2016 and FY 2018.[20] Despite significant funding levels, the FCC's regulatory complexity and ability to operate independently with little congressional oversight have led lawmakers to fund additional programs to deploy high-speed broadband.

The Rural Utilities Service (RUS) at USDA delivers broadband deployment assistance through the Rural Broadband Access and Loan Guarantee Program, the Community Connect Program, and the ReConnect program. All three programs award corporations, cooperatives, and state local and tribal governments with loans or grants for purposes of expanding broadband infrastructure in rural communities. The ReConnect program was authorized in the Consolidated Appropriations Act of 2018 as a pilot program that would provide more targeted, accessible, and innovative financing solutions to expand rural broadband access.[21] The ReConnect program awards funds for submitted projects in proposed funding service areas, as opposed to the FCC awarding blanket auction funds to ISPs and requiring a deployment report after the funds have been obligated. Both FCC and USDA programs rely on broadband availability maps to determine eligibility and avoid the duplication of funds or misallocating funds to areas with existing service.[22]

From 2011-2018, the National Broadband Availability Map was managed by the NTIA as included in the language of the American Recovery and Reinvestment Act of 2009.[23] In 2018, the National Broadband Availability map was decommissioned and replaced by the FCC's Fixed Broadband Deployment map and received significant

[20] Universal Service Administrative Company, 2018 Annual Report. 2018. p.11 https://www.usac.org/wp-content/uploads/about/documents/annual-reports/2018/USAC-2018-Annual-Report.pdf

[21] Consolidated Appropriations Act of 2018. H.R.1625. 115th Congress. https://www.congress.gov/bill/115th-congress/house-bill/1625/text

[22] ReConnect Pilot Program: Funding Opportunity Announcement. The Federal Register. December 12, 2019.

[23] American Recovery and Reinvestment Act of 2009. H.R.1. 111th Congress. 2009. https://www.congress.gov/bill/111th-congress/house-bill/1/text

criticism for overstating broadband availability, omitting data on user costs, and failing to include complete lists of available ISPs to consumers.[24] The FCC generates deployment maps by collecting data from each broadband service provider at the census block level. A block is determined "covered" if a single end-user such as a home or business has access to broadband with speeds of 10 Mbps download / 1 Mbps upload, which is significantly lower than the industry standard of 25mbps download / 3 Mbps upload. According to the FCC map, 92% of Americans have broadband access. However, a report commissioned by Microsoft analyzed Pew Research data and the FCC's database of internet subscribers approximated only 42% have access to high-speed broadband.[25]

Inaccurate broadband maps risk overbuilding existing wireless networks and cause project delays, such was the case with nearly 300 RUS broadband projects funded by the ARRA that took over seven years to enter the construction phase.[26] Congress acted to address the mapping issue by passing the Broadband Deployment Accuracy and Technological Availability (DATA) Act of 2020. Signed into law by President Trump, the bill requires the FCC to collect granular data on broadband availability, crowdsource data provided by consumers and state and local governments, and publish new maps when awarding broadband funds. The bill also establishes a process at the FCC for individuals or groups to challenge FCC determinations on broadband service levels.[27] Approximately

[24] Pegoraro, Bob. "The Problem with America's New Broadband Map." Bloomberg. February 28, 2018. https://www.bloomberg.com/news/articles/2018-02-28/the-problem-with-the-fcc-s-new-national-broadband-map

[25] Kahan, John. "It's time for a new approach to broadband data to better serve Americans." Microsoft. April 8, 2019. Accessed September 30, 2021. https://blogs.microsoft.com/on-the-issues/2019/04/08/its-time-for-a-new-approach-for-mapping-broadband-data-to-better-serve-americans/

[26] Romm, Tony. "Wired to Fail." Politico. July 28, 2015. Accessed October 2, 2021. https://www.politico.com/story/2015/07/broadband-coverage-rural-area-fund-mishandled-120601

[27] Broadband DATA Act. S.1822. 116th Congress. 2020. https://www.congress.gov/bill/116th-congress/senate-bill/1822

$20 billion in rural broadband funding from the American Rescue Plan Act (ARPA), on top of billions included in two previous coronavirus relief packages, remain unobligated while the FCC updates its Fixed Broadband Deployment map, which may take up to two years.[28]

In the gap created by delays at the FCC, several state governments have developed broadband initiatives. In Georgia, the Georgia Broadband Deployment Initiative (GDBI), gathered address-level data such as real estate data, speed tests, and service provider data to create what former aide to FCC Chairman Tom Wheeler called "the most accurate in the country."[29] ISPs have traditionally been hesitant to share consumer detailed network data out of competition concerns, however, Georgia stimulated ISP buy-in by passing the "Georgia's Achieving Connectivity Everywhere" Act of 2018.[30] The bill incentivized participation in the multilayered, granular data crowdsourcing process by codifying confidentiality of ISP data. Under the law, competitors are unable to view an ISP's individual footprint, but customers can check to see if their area is covered. The granular mapping effort concluded 10% of Georgia homes and businesses lack broadband coverage, with 30% lacking coverage in rural areas. With this data, the state hopes to target funds received from the $350 billion ARPA state and local government coronavirus assistance funds to bridge the digital divide.

[28] Hodge, Rae. "The place that will make or break Biden's $20 billion broadband plan." CNET. February 19, 2021. Accessed October 2, 2021. https://www.cnet.com/features/heres-the-place-that-will-make-or-break-bidens-20-billion-broadband-plan/

[29] Tibken, Shara. "The FCC's broadband map won't be ready for another year. This data company has already built one." CNET. September 8, 2021. Accessed October 1, 2021. https://www.cnet.com/home/internet/the-fccs-broadband-map-wont-be-ready-for-a-year-this-data-company-has-already-built-one/

[30] Georgia ACE Act. SB 402. 2018. https://www.legis.ga.gov/api/legislation/document/20172018/179105

To address overbuilding as a result of bureaucratic siloes and overlapping missions between agencies, Congress passed the Broadband Interagency Coordination Act, which directs the FCC, NTIA, and USDA to enter an interagency agreement to coordinate the distribution of federal funds for broadband deployment.[31] In recent testimony before the Senate Commerce Committee, former FCC Commissioner O'Reilly claimed the existing law was too non-specific and fails to address incongruent understandings of the obstacles impeding rural broadband deployment.[32]

Despite an exponential increase in funding for addressing the supply side of broadband expansion, there has not been formal action to address the underlying issue of affordability for low-income subscribers of new broadband networks. The Lifeline Program and the Connect Care pilot programs at the FCC have subsidized broadband subscriptions for low-income individuals with long-term telehealth needs. With nearly one in five households living on less than $30,000 not having access to broadband due to cost, the issue of affordability remains equally as challenging as deployment.[33]

POLICY PROPOSAL

An option to increase the national broadband adoption rate is to pass H.R. 3684 with amendments targeting broadband capital availability and affordability. To increase the fixed broadband adoption rate from 70% to 85% over the next 5 years, it is proposed

[31] Broadband Interagency Coordination Act of 2019. 116th Congress. 2019. https://www.congress.gov/bill/116th-congress/senate-bill/1294

[32] O'Reilly, Micheal. Testimony before the Senate Committee on Commerce, Science, and Transportation: Recent Federal Actions to Expand Broadband: Are We Making Progress?." March 17, 2021. https://www.commerce.senate.gov/services/files/223448D3-78AE-4B72-9239-A66AB6CEE224

[33] Yarrow, Andrew. "The Cost of Internet in America." The Milken Institute Review. June 17, 2021 Accessed October 3, 2021. https://www.milkenreview.org/articles/the-scandalous-cost-of-internet-in-america

to pass H.R. 3684 with two amendments that direct the FCC to conduct a large-sum capital auction of $20 billion and appropriate $14.5 billion for a permanent broadband benefit for low-income families.[34]

Authorization

Despite its status as an independent agency, Congress maintains authority over the FCC as included in the provisions of the Communications Act of 1934.[35] The Telecommunications Act of 1996 mandated the FCC to expand the goal of universal service to include access to high-speed internet for all consumers at reasonable and affordable rates.[36] The universal service principal is the congressional mandate by which the FCC established the existing funding programs of the Universal Service Fund that have focused efforts on increasing access to advanced telecommunication services for consumers living in rural and remote areas, as well as those with low income.

The proposed amendment to H.R. 3684 would direct the FCC to expeditiously establish a new, one-time, large sum capital auction at the FCC under the USAC and would appropriate $20 billion to expand broadband to rural unserved areas. This amendment would give Congress the authority to establish and maintain strict oversight over each component of the auction including eligibility requirements, deployment timeline, and service area validation. The provisions would be the most explicit mandate directing

[34] Brake, Doug. "How to Bridge the Rural Broadband Gap Once and For All." Information Technology and Innovation Foundation. March 22, 2021. https://itif.org/publications/2021/03/22/how-bridge-rural-broadband-gap-once-and-all

[35] Communications Act of 1934, 47 U.S.C. § 307(a) (1982 and Supp. V 1987).

[36] Telecommunications Act of 1996, Pub. LA. No. 104-104, 110 Stat. 56 (1996).

programmatic activity at the FCC since the passage of the Communications Act of 1934 and the Telecommunications Act of 1996.

Authorization of the temporary Emergency Broadband Benefit (EBB) is derived from the Consolidated Appropriations Act of 2021, in which Congress appropriated $3.2 billion to the FCC to assist low-income households to purchase broadband subscriptions and internet devices under the COVID-19 public health emergency.[37] Adopted under FCC Report and Order 21-29, the EBB provides low-income customers with monthly discounts of up to $50 per month for fixed and wireless broadband internet and includes up to $75 per month on remote tribal lands.[38] Customers also receive service discounts of $100 for an internet-accessible device purchased through participating providers.

The proposed amendment would establish the Broadband Affordability Benefit (BAB) as a permanent program with an initial appropriation of $14.5 billion to expand affordable broadband. As is currently included in existing legislation, the EEB is only temporary. The program is slated to expire when the initial $3.2 billion appropriation is exhausted or six months after HHS declares the end of the COVID-19 pandemic. The amendment would strike the expiration provisions and mandate annual appropriations and oversight authority at the discretion of Congress.

[37] The Consolidated Appropriations Act of 2021, Broadband Provisions. Congressional Research Service. March 2, 2021. https://crsreports.congress.gov/product/pdf/R/R46701

[38] Federal Communications Commission, In the Matter of Emergency Broadband Benefit Program, Report and Order, February 25, 2021, at https://docs.fcc.gov/public/attachments/FCC-21-29A1.pdf.

Implementation- Infrastructure Auction

The new FCC program established by the proposed amendment to H.R. 3684 would be modeled similarly to the Rural Digital Opportunity Fund (RDOF). The program would obligate subsidy payments through a reverse auction to fixed-broadband providers to deploy broadband infrastructure to unserved by broadband with a minimum download rate of at least 25 Mbps and an upload rate of 3 Mbps.[39] However, Congress would mandate an accelerated auction timeline of one year for two rounds of bidding. Additionally, payments would be obligated as a single-sum and the deployment requirement to avoid default is shortened to three years instead of eight.[40] To incentivize broad market participation and rapid deployment, the FCC would publish single, per-location award amounts based on the projected cost to deploy networks within the mandated deployment window, and ISPs will competitively bid on the locations.

Bids will be evaluated to target unserved census blocks and will exclude providers that have received funding through the RDOF, RUS programs, and other federal subsidy programs to prevent overbuilding and duplication of funds.[41] Census blocks will be evaluated for existing service levels under the FCC Digital Opportunity Data Collection as included in the Broadband Deployment Accuracy and Technological Availability Act[42]. The use of granular data pulled from multi-level stakeholders would seek to address previous concerns regarding deployment mapping. The program would include a

[39] Federal Communications Commission, In the Matter of Rural Digital Opportunity Fund, Report and Order, January 30, 2020, p. 7, https://docs.fcc.gov/public/attachments/FCC-20-5A1.pdf

[40] Federal Communications Commission, Auction 904: Rural Digital Opportunity Fund, Summary, https://www.fcc.gov/auction/904.

[41] Rural Digital Opportunity Fund, Requirements, and Selected Issues. Congressional Research Service. August 28, 2020. https://sgp.fas.org/crs/misc/R46501.pdf

[42] Broadband DATA Act. S.1822. 116th Congress. 2020. https://www.congress.gov/bill/116th-congress/senate-bill/1822

formalized appeal process for state and municipal governments to contest and identify proposed award locations as served if the block has existing high-speed service available to customers or if the bidding providers have previously received funds from other federal broadband subsidy programs.[43] The program would not require additional implementation or staffing costs at the FCC, as bidding providers are evaluated and awarded based on their capacity to effectively deploy broadband infrastructure to unserved areas under the established timeframe. The proposed funding level would be $20 billion for two rounds of bidding until the funds are depleted.

Implementation- Broadband Affordability Benefit

The proposed permanent BAB would provide subsidized internet subscription support directly to end users following their application via the existing FCC Lifeline Program website. Customers would apply for support and receive payments applied directly to their internet subscription bill, so long as they meet the eligibility requirements and subscribe to one of the 825 participating providers across all U.S. states and territories.[44] Only one monthly service discount will be applied to either a wireless or fixed broadband subscription per household and only one device subsidy will be issued per household.

Customers will be eligible if they demonstrate low income at or below 135% of the federal poverty line, or if they participate in federal welfare programs such as SNAP,

[43] Federal Communications Commission, Auction 904 Updated Eligible Areas, June 25, 2020, https://www.fcc.gov/ reports-research/maps/auction-904-updated-jun20-eligible-areas/.

[44] The Emergency Broadband Benefit, Implementation, and Future Policy Directions. Congressional Research Service. February 23, 2021. https://crsreports.congress.gov/product/pdf/IN/IN11612#:~:text=EBB%20is%20a%20temporary%20program,Health%20and%20Human%20Services%20terminates.

Medicaid, or Lifeline Program telephone assistance. The eligibility requirement of the EEB that permits subsidies to individuals suffering a loss of income during the pandemic due to a job loss will be eliminated. The program will require no additional staffing or implementation costs. The program will receive an initial appropriation of $14.5 billion and future appropriations will be at the discretion of Congress.

POLICY ANALYSIS

Broadband Affordability Benefit – Pro

Passing legislation to formalize the Emergency Broadband Benefit (EBB) as a permanent Broadband Affordability Benefit (BAB) would increase broadband adoption rates in low-income, unserved, rural communities where cost serves as the primary barrier to adoption. According to recent FCC program figures, more than 7 million households have enrolled in the EBB since its adoption in March of 2021.[45] Among U.S. states and territories, the highest levels of EBB participation are located in states with large rural populations, namely Puerto Rico, Kentucky, Louisiana, Oklahoma, and Tennessee.[46] For reference, traditional supply-side infrastructure subsidy programs, such as the ReConnect program at USDA, have connected approximately 300,000 homes over a longer span of two years.[47] A comparison of households connected as a key performance indicator concludes that demand-side subsidy programs are more effective in boosting broadband adoption rates in a shorter period.

[45] Emergency Broadband Benefit Providers. FCC. Updated October 26, 2021. Accessed October 28, 2021. https://www.fcc.gov/emergency-broadband-benefit-providers

[46] Emergency Broadband Benefit Claims Tracker. USAC. Updated October 31, 2021. https://www.usac.org/about/emergency-broadband-benefit-program/emergency-broadband-benefit-program-enrollments-and-claims-tracker/

[47] ReConnect Loan and Grant Program: Round 2 Funding Updates. USDA. Accessed October 31, 2021. https://www.usda.gov/reconnect

Additionally, the BAB requires little to no increases in administrative capacity at the FCC to deliver funding, as service reimbursements to providers are administered through the framework of the pre-existing Lifeline program.[48] Under this structure, the FCC is an intermediary, rather than the owner of a government-subsidized telecom network. Participants verify their eligibility status directly to the FCC, shop for a broadband subscription from a participating provider, and reimbursements for discounts are made to providers en masse based on total subscription numbers, rather than individual accounts. Ownership of the networks and contract obligations remain with the service providers, many of whom possess greater operational and technological capacity than a public agency. Recent EBB numbers reveal the program has increased the capacity for FCC funds to deliver higher service speeds, as EBB recipients are upgrading their service speeds up to 200 Mbps or greater.[49] Over 500 service providers across all U.S. states and territories have registered with the EBB to deliver $3.2 billion in subscription discounts in eight months, and the permanent BAB would utilize this existing network.

A consumer benefit program would ensure the equal distribution of federal funds for broadband, unlike current federal programs that obligate disproportionately larger amounts for high-cost support in the regions most difficult to serve, such as Alaska.[50] Participants under the existing EBB are treated equally, regardless of their state of residence. Consumer preferences are the sole determinant of which ISPs succeed in the

[48] Lifeline Program for Low-Income Consumers. FCC Accessed October 29, 2021. https://www.fcc.gov/general/lifeline-program-low-income-consumers

[49] Supan, Joe. "EBB Participants Are Upgrading Speeds." All Connect. September 10, 2021. https://www.allconnect.com/blog/ebb-participants-upgrading-speeds

[50] Skorup, Brent. "Narrowing the Rural Digital Divide With Consumer Vouchers." October 13, 2020. Accessed October 27, 2021. https://www.mercatus.org/publications/technology-and-innovation/narrowing-rural-digital-divide-consumer-vouchers

individual market, and high levels of consumer participation in the program would incentivize more providers to participate, ensuring competition and equality of choice.

Broadband Affordability Benefit - Con

Measuring participation levels in the existing EBB is not sufficient to measure the projected effectiveness of the permanent BAB program. A significant factor in the broadband adoption equation depends on the physical availability of broadband networks, of which there is still a significant divide between rural and urban.[51] Access to physical networks remains a significant contributing factor in bridging the digital divide. Additionally, EBB data published by providers highlights that the program has been used to shift costs for existing subscribers, rather than incentivize broadband adoption for new users. Among public updates given by providers, a majority have indicated that the availability of an affordable broadband benefit has not increased participation from new subscribers. Sparklight Cable, based in Phoenix, AZ, published that out of their 5,000 participants in the EBB, less than 10% were new subscribers.[52]

Data published by major providers such as Optimum reveals that a majority of subscribers are using EBB funds to subscribe to faster plans. At the end of Q2 2021, the company shared its approval of 6,500 EBB participants, of which only 300 were new customers.[53] With these granular examples, a permanent consumer affordability benefit under the proposed BAB would not be an effective means of boosting the national

[51] "2020 Broadband Milestones Report." American Broadband Initiative. June 25, 2020. https://www.ntia.doc.gov/report/2020/ABI_Progress_Report

[52] "Sparklight Participates in FCC Emergency Broadband Benefit." Sparklight: Cable One. April 23, 2021. https://www.sparklight.com/news/sparklight-participates-in-fcc-ebb-program-to-assist-customers-financially-impacted-covid-19

[53] "2021 Fiber-to-the-Home Top 100." Broadband Communities. July 17, 2021. https://www.bbcmag.com/tools-and-resources/ftth-top-100/2021

broadband adoption rate in the long term. Provider participation in the BAB would be voluntary, and ISPs can set their requirements as to which services or packages are eligible for the discount. Large providers such as Verizon and AT&T have been criticized for requiring that benefits be applied to newer, more expensive plans. Both providers have issued communications to customers indicating that any household interested in the EBB will have to switch plans to qualify.[54] In addition to clouding any conclusions on the effectiveness of the BAB to increase broadband adoption rates, the flexibilities given to providers raise equality concerns, as the impact of the benefit depends on the price of the plan established by each of the 500 registered providers.

The administrative capacity of the FCC to address broadband affordability and adoption has also been scrutinized by broadband advocacy groups as antiquated and cumbersome. Under the existing framework, ISPs must register as an ETC carrier to receive subsidies. ETC status is either confirmed at the state level, unless the state declines, or at the FCC. ETC designation acts as a barrier for entry to carriers and can often lead to limited choices for consumers[55]. With only one or two carriers in the market, the profit incentive for ISPs to publish affordable pre-discount plans is diminished, which is contrary to the intended policy goal of increasing broadband affordability and adoption.

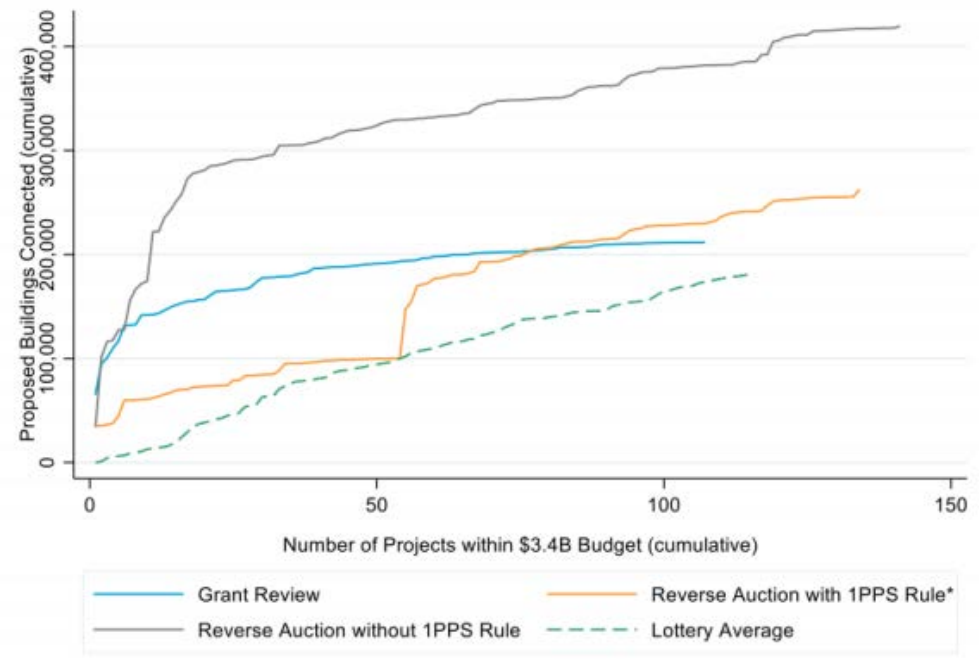
[54] Fowler, Geoffrey. "The government has a program to cut your internet bill. Verizon was using it to force you onto a new data plan." May 21, 2021. https://www.washingtonpost.com/technology/2021/05/17/verizon-emergency-broadband-benefit/

[55] Brake, Doug. "Lessons from the Pandemic: Broadband Policy After COVID-19." July 13, 2020. https://www.bbcmag.com/tools-and-resources/ftth-top-100/2021

Large-Sum Capital Auction – Pro

Rapid increases in investment across the public and private sector over the last five years make isolating one factor for a test of policy effectiveness difficult, however recent literature suggests reverse auctions are twice as effective as traditional grant programs in delivering broadband access. Using obligations data from the Broadband Technology Opportunities Program (BTOP) at NTIA, the Technology Policy Institute published an empirical analysis that concluded reverse auctions may double the impact of a broadband subsidy program compared to a traditional grant program.[56] The analysis highlights that for the same amount of subsidy dollars, the BTOP could have connected 50,000 more buildings to broadband access with $3,000 less in costs per building under a reverse auction.

Figure 2: *TPI model comparing broadband project funding methods.*[57]



[57] Oh, Sarah. "Using Reverse Auctions to Stretch Broadband Subsidy Dollars." Technology Policy Institute. January, 2021. https://techpolicyinstitute.org/wp-content/uploads/2021/03/Oh-Reverse-Auctions-Lessons-from-BTOP-Jan-2021.pdf

Following the passage of the ARRA, which included $7.2 billion in broadband subsidies to be delivered by NTIA and RUS, a group of 71 economists published an analysis highlighting reverse auctions as the most promising method of maximizing broadband improvement.[58] Requesting, reviewing, and revising the rules and eligibility requirements of loan and grant programs is time-consuming and less effective at delivering infrastructure funding, as subsequent GAO reports of RUS broadband programs underscore. The reports found that delivery timelines for broadband funding across RUS programs were inconsistent and impeded by poor management of IT contracts and failed to establish measurable goals for each program.[59] Reverse auctions address the administrative burden and the time associated with reviewing applications and identifying which projects best address the established goal of a particular program. Reverse auctions capitalize on market mechanisms to boost competition among ISPs and award bids based on the timeline of project completion and price dimensions. Given these conclusions, a large-sum reverse auction would effectively boost broadband availability and adoption within the desired timeline of completion.

Reverse auctions are also more cost-effective, as they can be designed to compare proposals for a given project and maximize the number of miles served for the lowest cost before awarding bids. The cyclical nature of the auction promotes competition among ISPs as to which can construct the most miles of broadband infrastructure to rural and unserved areas for the lowest cost. This saves an additional cost to the taxpayer, as FTE and

[58] Baumol, Arrow. "Comments of 71 Concerned Economists: Using Procurement Auctions to Allocate Broadband Stimulus Grants." 2009. https://www.semanticscholar.org/paper/Comments-of-71-Concerned-Economists%3A-Using-Auctions-Baumol-Arrow/c6deb2756829ea3c9b6598e926f1cf836725412f

[59] "Rural Broadband Deployment: Improved Consistency with Leading Practices Could Enhance Management of Loan and Grant Programs." GAO. April 13, 2017. https://www.gao.gov/products/gao-17-301

paperwork processing costs are eliminated. In the case of the BTOP grant program, the cost to review applications was approximately $99 million.[60] The table below illustrates the lower mean subsidy level per project under a reverse auction mechanism.

Figure 3: *TPI model comparing mean project-level-subsidy per award mechanism.*[61]

Allocation Method	Number of Winning Projects	Proposed Number of Buildings Connected in Winning Projects	Average Proposed Subsidy-Per-Building in Winning Projects	Mean of Project-Level Subsidy-Per Building Means
Grant Review	107	211,617	$16,067	$105,157*
Reverse Auction	134	261,943	$12,980	$27,903
*Reverse Auction***	141	419,315	$8,108	$19,719
*Lottery***	116	182,282	$18,652	$24,267

Large Sum Capital Auction – Con

There is little empirical evidence indicating that the billions auctioned through existing FCC programs such as the RDOF have been effective in increasing broadband availability in rural areas. Increasing the scale of awards under a new reverse auction is unlikely to increase the broadband availability and adoption rate. This is largely due to the voluntary nature of FCC and other federal broadband programs and the absence of an incentive mechanism for providers to expand to rural and unserved areas despite the

[60] "Broadband: Intended Outcomes and Effectiveness of Efforts to Address Adoption Barriers Are Unclear." GAO. June 2, 2015. https://www.gao.gov/assets/gao-15-473.pdf

[61] Oh, Sarah. "Using Reverse Auctions to Stretch Broadband Subsidy Dollars." Technology Policy Institute. January, 2021. https://techpolicyinstitute.org/wp-content/uploads/2021/03/Oh-Reverse-Auctions-Lessons-from-BTOP-Jan-2021.pdf

costs.[62] The FCC's Connect America Fund auction awarded hundreds of millions of dollars to ISPs who failed to build out projects under the originally agreed-upon timeframe.[63] The FCC often awards bids on hypothetical rather than actual service and relies solely on self-reported data from ISPs to measure service levels following the completion of an award.[64] The FCC also disincentivizes participation from smaller providers such as local co-operatives via ETC requirements and consistent favoritism of larger providers. As a result, community leaders and ISPs with rich histories of operating in rural and remote areas are left out of efforts to expand broadband availability.

Accusations of overbuilding and the recall of funds from the recent RDOF auctions call the administrative capacity of the FCC into question. Namely, the FCC has very few enforcement mechanisms to ensure auction winners maintain their commitment to complete build-out on time. Additionally, under current FCC regulations, providers with limited experience in delivering high-speed broadband networks may receive significant funding. In the last RDOF reverse auction, LTD broadband received $1.3 billion in subsidies to build out broadband to 528,088 locations under proposed speeds of one gigabit. However, the provider is registered as a fixed wireless company. Currently, fixed wireless technologies are not capable of reliably delivering connections at those speeds at a low cost to subscribers.[65] In this case, the FCC was scrutinized for a lack of diligence in evaluating

[62] "Governors Strategies to Expand Affordable Broadband Access." National Governors Association. November 17, 2020. https://www.nga.org/center/publications/expand-affordable-broadband/

[63] Taglang, Kevin. "The Politics of Good Enough." The Benton Institute for Broadband. https://www.benton.org/blog/politics-good-enough November 12, 2020.

[64] Levin, Blair. "Trump's FCC failed on broadband access. Now, Biden's FCC has to clean up the mess." Brookings. February 2, 2021. https://www.brookings.edu/blog/the-avenue/2021/02/02/trumps-fcc-failed-on-broadband-access-now-bidens-fcc-has-to-clean-up-the-mess/

[65] Engebretson, Joan. "Good News for Windstream, Bad News for LTD Broadband in Latest FCC RDOF Action. The TeleCompetitor. https://www.telecompetitor.com/good-news-for-windstream-bad-news-for-ltd-broadband-in-latest-fcc-rdof-action/

projects before awarding bids.[66] The demonstrated levels of project evaluation foreshadow future waste of time and money in future auctions.

Overbuilding resulting from faulty maps risks the delay or failure to deliver broadband service under the proposed auction. Several states, such as Georgia, Maine, and Minnesota, have formed their own mapping commissions to compensate for the gap in reliable broadband availability data. As a result, these states have been better equipped to deliver broadband infrastructure to unserved areas. Under the FCC form 477 data, ISPs are required to report twice a year, service is evaluated by large census blocks, and auction awardees are permitted to keep awards even if it is found funds were used to expand into areas that already had broadband or lacked residents entirely.[67]

POLITICAL ANALYSIS

Broadband Affordability Benefit ─ Stakeholder Perspective

ISP's and broadband interest groups have long advocated for permanent federal support of low-income broadband voucher programs via the FCC rulemaking process. Under the principle of universal service, these entities were consistently involved in efforts to reform the existing FCC Lifeline program to better serve those in need of assistance subscribing to voice and internet services.[68] Following the creation of the EBB in the Consolidated Appropriations Act of 2021, Comcast submitted a detailed comment to the

[66] "Walberg Leads Birpartisan Letter to FCC on Rural Broadband Funding." Jan 19, 2021. https://walberg.house.gov/media/press-releases/walberg-leads-bipartisan-letter-fcc-rural-broadband-deployment

[67] Arnason, Bernie. "RDOF Analysis Reveals Surprises and Growing Controversy." December 22, 2020. https://www.telecompetitor.com/rdof-analysis-reveals-surprises-and-growing-controversy/

[68] Lifeline Public Broadband Provider Petitions and Public Comment Period. FCC. Accessed November 15, 2021. https://www.fcc.gov/lifeline-broadband-provider-petitions-public-comment-periods

FCC urging the rapid implementation of the statute citing the unprecedented economic upheaval in the wake of COVID-19.[69]

In addressing broadband affordability, ISPs prefer programs with broad grants of authority that leverage existing, voluntary broadband assistance programs. This structure requires no starting costs and expands the reach of the programs to include large numbers of existing subscribers. Previous actions by ISPs at the onset of the pandemic further signal industry buy-in for a permanent broadband assistance benefit, such as signing the FCC's Keep Americans Connected pledge and voluntarily stopping payments on accounts impacted by pandemic job loss. The availability of EBB payments kept subscribers online, allowed ISPs to accelerate speeds for low-income subscribers, and signaled out participants as good corporate citizens in a time of crisis.

However, ISPs remain critical of existing transparency, participation, and eligibility requirements under the EBB. Providers argue for the elimination of the eligible telecommunications carrier (ETC) requirement of the Lifeline program and advocate for the inclusion of all ISPs who currently provide discounted internet subscriptions to low-income customers. Broadband advocacy groups echo this criticism, claiming ETC requirements impose unnecessary burdens and costs on providers to participate in affordability programs. In their collective view, such costs minimize choice for consumers and discourage participation in the benefit. [70] Additionally, ISPs and broadband advocates demand further clarification on rules regarding one-per-household enrollment in the EBB

[69] Rose, Mitch. Comments Before the FCC. Comcast Corporation. January 25, 2021. https://ecfsapi.fcc.gov/file/10125786118622/2021-01-25%20Comcast%20EBB%20Comments.pdf

[70] Crenshaw, Jordan. Comments on FCC Emergency Broadband Benefit. Technology Engagement Center: U.S. Chamber of Commerce. February 16, 2021. https://americaninnovators.com/research/c_tec-comments-on-fcc-emergency-broadband-benefit/

and safe harbor protections for providers, should a customer provide false documentation to obtain the benefit.

In Congress, a permanent broadband affordability benefit has near-unanimous support. The EBB passed in the House and Senate by a vote of 359-53 and 92-6 respectively.[71] Democrats hold majorities in both chambers and can pass this amendment with the pending infrastructure legislation, as the Senate-approved IIJA includes $65 billion to expand broadband connectivity. Direct-to-consumer programs are widely supported by Progressive and Moderate Democrats, as illustrated by the passage of the ARP and pandemic-related stimulus packages. The IIJA, as amended with the BAB, would likely pass the Senate, as broadband connectivity is a unifying issue for Republicans and Democrats.[72] Although there is a possibility of either Progressive Democrats in the House or Republicans in the Senate voting down the bill with a BAB amendment for political points, both sides are facing significant pressure ahead of the 2022 midterms to deliver on the issue.[73]

State and municipal governments are supportive of the EBB in its current form, as states have jurisdiction over ETC approvals. The BAB, as included in the proposed amendment, would garner support, insight, and pledges of assistance from governments across the United States, including California, Chicago, Texas, Boston, and Portland.[74]

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[71] "H.R. 133 – The Consolidated Appropriations Act of 2021." Congress.gpv. Accessed November 12, 2021. https://www.congress.gov/bill/116th-congress/house-bill/133/all-actions?overview=closed&q=%7B%22roll-call-vote%22%3A%22all%22%7D

[72] "Senators Cornyn, Manchin Introduce Bill to Expand Broadband Access to Unserved Rural Areas" Connected Nation. Accessed November 12, 2021. https://connectednation.org/ohio/2020/10/01/senators-cornyn-manchin-introduce-bill-to-expand-broadband-access-to-unserved-rural-areas/

[73] "Majority of Americans Favor Increasing Infrastructure Investment." U.S. News. July 22, 2021. https://www.usnews.com/news/politics/articles/2021-07-22/majority-of-americans-favor-increasing-infrastructure-spending-poll-finds

[74] "Before the FCC: Final Comments of the Localities on the Emergency Broadband Benefit." Jan 25, 2021.

State, local, and community based programs have conducted outreach for the EBB in coordination with their own individual low-income broadband availability and affordability programs.[75]

Large Sum Capital Auction ─ Stakeholder Perspective

Public statements from major ISPs following previous large sum auctions, such as the Rural Digital Opportunity Fund, reveal industry-wide skepticism of the capacity for FCC auctions to close the digital divide efficiently. Following the completion of RDOF I, AT&T criticized the auction for awarding far less than what was allocated for purposes of expanding rural broadband. Of the $16 billion, only $9.2 billion was awarded, and the remaining $4.4 billion was rolled over into RDOF II. In a whitepaper submitted to the FCC following the completion of RDOF I, they argued the lack of wide participation from providers can be attributed to inaccurate deployment data, smaller awards per location, and the requirement for FCC auction awardees to offer service at rates comparable to their urban rates.[76] Under the structure of a reverse auction, providers are evaluated by who can build more infrastructure for the smallest awards while providing urban-comparable speeds. This framework is contrary to a profit-driven business model of large ISPs and discourages participation in these types of programs.

Broadband advocacy groups representing smaller broadband providers, public utility commissions, and cooperatives support federal subsidies for broadband but remain

https://ecfsapi.fcc.gov/file/10126410122548/LOCAL%20GOVERNMENTS%20FINAL%20COMMENTS%20IN%20BROADBAND%20BENEFITS%20DOCKET%20OF%20THE%20LOCALITIES.pdf

[75] "Information on the EBB Program." California Department of Education. May 24, 2021. https://www.cde.ca.gov/ls/nu/infoonebbprogram.asp

[76] Marsh, Joan. "The RDOF Auction: Results and Implications for U.S. Broadband Policy." AT&T. December 15, 2020. https://www.attpublicpolicy.com/fcc/the-rdof-auction-results-and-implications-for-u-s-broadband-policy/

critical of the FCC's implementation of reverse auctions using short-form applications. The National Rural Electric Cooperative Association and National Rural Telecommunications Cooperative argued the RDOF awarded funds to providers with limited financial and operational qualifications to serve geographically remote areas.[77] In their view, the FCC did not put adequate network delivery limitations on bids before the auction. The FCC also accepted several bids from companies claiming to serve areas that they would not be likely to build or that already have existing service, such as SpaceX's proposed projects to "unserved" metropolitan airport parking lots.[78] These groups represent smaller corporations that have operated rural and remote utilities since rural electrification, and their criticism of the FCC's operational efficiency and evaluative criteria correspond with their support of RUS broadband programs. Based on their feedback, local operational knowledge, adequate service data, transparency of proposed projects, and a rigorous application process are better suited to bridge the digital divide.[79]

In Congress, FCC auctions have been criticized for delays, a lack of transparency, and for mismanagement of federal funds by a majority of members from both parties. Following the RDOF II auction, a bipartisan group of 158 Members of Congress wrote to the FCC urging the commission to thoroughly vet applications for technical, financial, and operational feasibility.[80] In this inquiry and subsequent summons of FCC commissioners

[77] "The Rural Digital Opportunity Fund: America's Broadband Hopes at Risk." NRECA-NRTC. February 2, 2021. https://www.electric.coop/wp-content/uploads/2021/02/NRECA-NRTC-RDOF-paper-PostFinal-02-01-2021.pdf

[78] Roulette, Joey. "Parking lots and airports don't count for rural broadband funding." The Verge. July 26, 2021. Accessed November 15, 2021. https://www.theverge.com/2021/7/26/22595004/fcc-spacex-rural-broadband-rdof-parking-lots-airports

[79] Cash, Cathy. "ReConnect Broadband Program A Game Changer for Electric Coops." NRECA. August 24, 2021. Accessed November 13, 2021. https://www.electric.coop/reconnect-broadband-grants-a-game-changer-for-electric-co-ops

[80] The Honorable Tim Walberg. Letter to FCC Chairman Ajit Pai. January 19, 2021. https://walberg.house.gov/sites/walberg.house.gov/files/WalbergFCCRDOFletter.pdf

to Capitol Hill for testimony, members have cited repeated FCC USF auction awards to providers that have demonstrated an inability to meet FCC deadlines for project completion.[81] Of the $65 billion included in the IIJA to expand broadband adoption, over 80% of the funds are appropriated to agencies under the direct oversight of Congress, including RUS and NTIA. Congressional hesitancy to allocate more funds to the FCC is apparent in the text of the bill as it's currently written and in the bipartisan criticism of the FCC. It is unlikely the proposed amendment providing an additional $20 billion to the FCC for a large sum reverse auction would pass either the House or Senate.

Public Opinion

The shared experience of the coronavirus pandemic has bolstered public opinion regarding federal subsidies of infrastructure, including broadband, Recent polling signals an overwhelming majority of U.S. voters support federal funding to close the digital divide. According to polling conducted by the Internet Innovation Alliance, 90% of voters want Congress to support federal broadband infrastructure programs and 88% said they want Congress to use federal funds to expand existing programs that subsidize broadband infrastructure expansion or provide free or discounted broadband access to low-income Americans.[82] Based on this polling, the proposed amendments targeting broadband availability and affordability are in line with public opinion. This gives Congress

[81] The Honorable Shelley Moore Capito. "Capito Cautions Funding on RDOF Funding For Frontier." December 10, 2020. https://www.capito.senate.gov/news/press-releases/capito-cautions-fcc-on-rdof-funding-for-frontier

[82] "Poll: 9 out of 10 Voters Support Congress Using Federal Funds to Bring Broadband to All." Internet Innovation Alliance. September 10, 2020. https://www.globenewswire.com/news-release/2020/09/10/2091760/0/en/POLL-9-Out-of-10-US-Voters-Support-Congress-Using-Federal-Funds-to-Bring-Broadband-to-All-and-62-Want-Congress-to-Act-Immediately-to-Close-the-Digital-Divide.html

significant flexibility in appropriating funds to the FCC for broadband infrastructure expansion and an affordable broadband benefit.

RECOMMENDATION

Broadband Affordability Benefit

Given the near-unanimous political support for a permanent broadband benefit and the speed with which these funds can be delivered via the existing EBB framework at the FCC, I recommend including an amendment to H.R. 3684 establishing the Broadband Affordability Benefit as a permanent program. This option would generate the greatest positive impact on the national broadband adoption rate, as the evidence presented highlights demand-side subsidy programs as sufficiently effective in connecting more households to high-speed broadband under a shorter period.

This option will build off the highly subscribed EBB, which has delivered $3.2 billion in broadband subscription reimbursements to 7 million low-income households across all U.S. states and territories in only 6 months. While challenges remain in incentivizing new subscribers to participate in the program, state and municipal governments have signaled their willingness to collaborate with the FCC on marketing the program in coordination with their low-income broadband availability and affordability programs. Additionally, a significant majority of ISPs and broadband interest groups have been advocating for a permanent broadband voucher program since the creation of the Lifeline program. This amendment would signal the federal government is willing to share more of the financial burden of achieving universal service and incentivize more providers

to register, further expanding the reach of the program and ensuring more options for consumers.

This policy would deliver significant political benefits with nearly non-existent political costs, as the recovery and lessons learned from the COVID-19 pandemic have unified all stakeholders around the need to deliver affordable broadband to low-income Americans. ISPs, advocates, state and local governments, Congress, and the public have all been vocally supportive of the EBB and have advocated for the expansion of the benefit. Any criticism of the FCC delivering broadband affordability reimbursements has been technical and is far outweighed by the calls for the government to do more in addressing internet subscription costs and ultimately closing the digital divide.

Large Scale Capital Auction

Given the inability of the FCC to effectively increase broadband adoption via existing reverse auctions and significant political opposition to appropriating additional broadband infrastructure funds to the FCC, I recommend against including a large-scale capital auction amendment to H.R. 3684. While the public remains overwhelmingly supportive of investing in broadband infrastructure, there is little empirical evidence that an additional appropriation of $20 billion to the FCC would positively impact the broadband adoption rate within the proposed timeframe of five years.

Based on the results from the RDOF, the effectiveness of FCC programs is undermined by its limited enforcement mechanisms to ensure awardees maintain their commitment to complete projects on-time and faulty maps that result in overbuilding. ISPs and broadband advocacy groups have been vocal in their skepticism of the FCC, and a

majority of Congress is displeased with the failure of past FCC reverse auctions to effectively address the digital divide. Additionally, smaller cooperatives and telecommunications providers have been engaged with state governments on their own broadband initiatives that are locally focused and have yielded better results for customers living in rural and remote areas. Although the short-form application may be less cumbersome and time-consuming than those of other federal broadband programs, the evidence suggests the short-form applications lead to substantial project delays, waste, fraud, and abuse.

Of the $65 billion included in H.R. 3684 to expand broadband adoption, over 80% are appropriated to agencies under the direct oversight of Congress. Influential leaders in both parties are currently awaiting responses to FCC oversight requests. Given this political dynamic, it is unlikely members will vote to amend the bill in its current form to appropriate more money to the FCC. The political costs of this amendment heavily outweigh the perceived political benefit of acting quickly.

CURRICULUM VITAE

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